

Some Deformities in the Abdominal Segments of Tachinidæ.

By C. H. TYLER TOWNSEND.

In the examination of material in the Tachinidæ, I have run across several cases of deformity in the abdominal segments, which are worthy of being placed on record as a contribution to the subject. Four specimens, belonging to as many different species and genera, are noticed below.

Echinomyia thomsoni Will.—A ♀, taken June 8th, Las Cruces, N. M., exhibits the following peculiarities: The first segment is normal; the right half of the second segment is quite normal, but the left half is very considerably lengthened and joins the fourth segment for nearly one-third of its width, crowding out the third segment entirely on that side; the third segment is represented by about two-thirds of that segment on the right side above, and about one-half of the segment below; the fourth or anal segment is but slightly lengthened on its left one-third. Thus the abdomen appears drawn up on the left side, the anal segment being set on to the second, on the left, at an acute angle to supply the deficiency in the third segment. None of the macrochætæ belonging to the third segment are present at the suture between the second and fourth segments, and this suture is abnormally deep and wide, and presents the appearance of a scar.

Hyphantrophuga hyphantriæ Twms.—A ♀, bred from *Hyphantria cunea*, issued August 25th, Las Cruces, N. M., presents a more peculiar deformity. In this specimen the abdomen is drawn up on the right side; the first segment is somewhat lengthened and bulging behind on the right side, making the suture between the first and second segments sinuate; the second and third segments are separated by a suture on the left side extending hardly to the median line, while on the right they are merged into a single long segment about two-thirds the normal length of the two; the anal segment is quite normal in its proportions, but points a little to the right in consequence of that side of the abdomen being shortened. The normal hind marginal macrochætæ of the second and third segments are wholly wanting on the right side. The ventral portion presents the same appearance.

Clytia flava Twms.—A ♂, from S. Illinois (Robertson), exhibits a still more marked deformity. The second segment seems

to be split diagonally by an abnormal suture running from the left anterior corner to the right posterior one; a blind suture on the right side occupies nearly the place of the normal one between the first and second segments, while a similar suture on the left side occupies the position of the normal one between the second and third segments; these two sutures reach only to the median line and there disappear; the anal segment is quite normal in form, but is somewhat inclined toward the right, as the posterior margin of what should normally constitute the third segment is a little oblique to the median line and is inclined anteriorly on the right. There is no special abnormal feature in the disposition of the macrochaetae, except that the normal median marginal pair of the second segment is obsolete and that of the first segment nearly so. The ventral portion does not share the deformity to such a degree as the dorsal. This specimen shows an inclination toward either an absorption of one abdominal segment, or the acquisition of a fifth one.

Eustomatodexia insulensis Twms. ms.—A ♂, from Jamaica (C. W. Johnson), May, shows the following peculiarities: The first segment is lengthened by one-fourth on the right half, where it joins the right side of the third segment, its posterior suture being sinuate; only the left half of the second segment is present, extending to and including the median line, its anterior and posterior sutures uniting in a curve on the median line; the right side of the third segment is lengthened by one-third, which still leaves the right side of the abdomen somewhat shortened or drawn up, on account of the absence of the second segment on that side; the fourth or anal segment is normal. The venter agrees with the dorsum; the macrochaetae on hind margins of last two segments are normal; the normal lateral marginal one on each side of first segment is present; the lateral marginal pair of the second segment is present only on the left side, while the normal median marginal pair is represented by a single macrochaeta.

The last mentioned individual is a *deixiid*. In all of these species the normal number of abdominal segments is four. I have referred to the antero-posterior diameter of the segments as the length, although it is the lesser diameter.

In all probability the deformities above described were due to injuries received in the larval, not in the pupal state.